

Assistive Technology and Aging

*A Handbook for Virginians who are Aging
and Their Caregivers*



Virginia Assistive Technology System

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Every day, new products and services are being created for people of all ages. But knowing what is out there and how to get it can be quite a challenge.



INTRODUCTION TO AGING AND ASSISTIVE TECHNOLOGY

"The use of assistive technology and home modification is rising sharply while the long-term use of personal assistants is declining significantly."

—Langio

Aging is a normal process that affects the well-being of every person in some way. As we age, we may find it harder to climb stairs, drive cars, or remember what day of the week it is. Despite the challenges of aging, however, most of us want to continue with activities we have always enjoyed. We plan to continue to be in control of our lives. We intend to be independent and live comfortably in our own homes for as long as possible. Assistive technology is a powerful tool for achieving these goals.

Assistive technology can be simple or complex. It can be fastening tape on clothes in place of buttons, or using magnifiers for enlarging print. Assistive technology can also be more complex devices, such as, modified hand controls for cars and wheelchair lifts. "Assistive technology is any device or piece of equipment, whether acquired commercially off the shelf, modified, or customized, that is used to increase, maintain, or improve functional

capabilities of individuals with disabilities. Assistive technology services are defined as any service that directly assists an individual with a disability to select, acquire, and use assistive technology." Technology Related Assistance for Individuals with Disabilities Act of 1988 (P.L. 100-407).

Age Related Changes that Affect Our Health

Often we are surprised by the normal changes that affect our bodies as we age. They simply creep up on us. It is important, however, to recognize that these changes can cause barriers to an active, independent life for persons who are older. Even though we do not want to think of ourselves as having a disability, a significant number of older people experience functional limitations associated with disabilities.

According to the AARP, the natural aging process contributes to a variety of health problems. Although no two people age in the same way, there are some common age-related issues we may experience in later life. Some examples are:

- Hearing, which declines especially in relation to the highest pitched tones.



Closed Circuit Monitor/TV (CCTV) for magnified print



- The majority of older people do not experience significant memory loss. Alzheimer's disease and other dementias affect less than 1% of people aged 60-64 and less than 3% of people aged 70-74. The incidence of these conditions only increases significantly in people over 85 years.
- Older people are often active in their communities. 24% of people aged 55 and over contribute their time as volunteers. 11.8% of people aged 60 and over continue in paid employment.
- A loss of muscle and bone strength and coordination occurs with an accompanying loss of mobility, agility, and flexibility.
- Sexuality is a characteristic of people at all ages. Older age does not mean the loss of capacity for or interest in sexual expression. However opportunities for sexual interaction may be reduced by the death or disability of a partner, or changes to accommodation that affect privacy.
- A decrease in the sensations of taste and smell and a decline in visual ability may occur as a person ages.
- Changes take place in the cardiovascular and respiratory systems, leading to decreased availability of oxygen and nutrients throughout the body.
- Older people are more diverse than any other age group. Each generation of older people brings its unique historical and cultural experiences with them as they age.
- Nearly 38% of people aged 55+ care for children, or for frail or ill relatives and friends.
- Wisdom is not automatic with age. However, the accumulated experience of people who are older is a resource that should be valued and used well by younger generations.

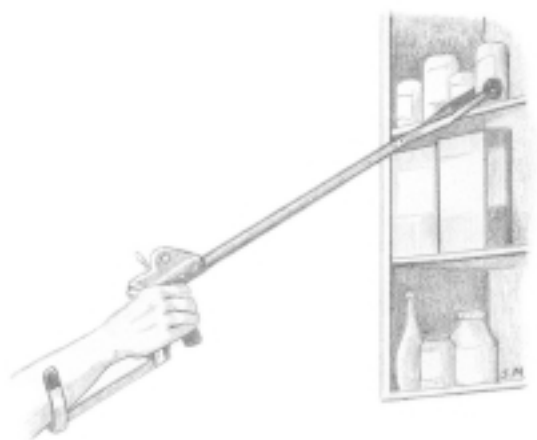
These age-related changes often require us to make some changes in our daily lives. Although we cannot reverse the aging process, we can find effective ways to cope with it! More and more older citizens are discovering that assistive technology devices and services and home modifications provide new ways to "get around" limitations.

“Older people affect the development of technology in two ways: by needs for new products and services and by increased demands for customization.”

—Brink

“The very same technology devices that today’s younger adults consider modern conveniences may be defined by older persons as necessities.”

– Rhoads



Reacher

Three Nationwide Trends Related to Aging

The majority of seniors live independently and require no assistance with daily tasks. Older people with disabilities living in the community, are more likely to receive assistance from their spouses or partners than from formal community services.

Three national trends suggest that assistive technology devices and services and home modifications are beginning to play a significant role in helping older persons remain in their own homes longer, rather than relying solely on long-term care and services.

- A growing size and percentage of the general population of the United States is over 65 years old. 95.7% of people aged 60+ are living in the community.
- Assistive technologies offer older persons the promise of greater independence. Currently there are more than 23,000 assistive devices and this number grows rapidly.
- The generation of "baby boomers" approaching retirement is relatively comfortable using assistive technology and home modifications. They will bring many technology-related skills into their retirement years.

Virginia Trends Related To Aging

The population of Virginians age 60 and over will grow from 14.7 percent of the total population in 1990 to almost 25 percent by 2025, when there will be more than 2 million Virginians in this age group. The number of Virginians age 85 and older will increase dramatically between 1990 and 2025 - five times faster than the state's total population growth.

This increase in Virginia's elderly population will lead to greater demand for assistive technology. Age-related changes often negatively affect our health and independence, thus increasing the need for assistance. Due to the growing numbers of elderly who wish to stay independent in the community, researchers, caregivers, family members and the individuals themselves are looking for new solutions. They are exploring strategies that reach beyond human assistance; they are looking closely at tools for independence or what is more commonly called "assistive technology".

ASSISTIVE TECHNOLOGY AND HOME MODIFICATIONS COMMONLY USED BY OLDER PERSONS

The 21st century is the age of technology. Although every era has "new" technology, there are two major differences today. First, the nature of the technology has changed; and second, the transformation has been more rapid than at any other time. Every day, we are required to use new things in our transactions and communications—at the bank, at the supermarket, and at home. With these rapid changes there is the potential for older persons to feel left out or alienated.

Maintaining self esteem and a sense of belonging to a community is a challenge we all face as new technology invades our daily lives. We must view technology not as a luxury, or something beyond our capability, but rather as an essential tool to improve our quality of life.

Assistive technology in the homes of persons who are older is a concept whose time has come. Consider the number of microcomputer chips that program appliances in your own home: in the washer, dryer, dishwasher, coffee maker, microwave, digital clocks, garage door opener, automatic car lock, just to name a few. In 1990, the typical home had roughly seventy-five controller chips which managed a complex series of operations by turning a knob or pushing a button. The estimate for the year 2000 is 225 such chips, (Brink, 1997).

People over 50 now comprise one of the fastest growing segments of computer users. If you do not have a computer at home, your local library may be the place to go to use the Internet. At many Virginia county and city libraries there are "Internet work stations" for public use. You can use them to look up people and addresses, find information about a city, research a medical question, or even read the daily news. The librarians offer guidelines on how to use the Internet, and you can ask for help when you need it.

The computer holds great promise for people who are older living in rural communities. It can serve as a central control in the home for monitoring health conditions, such as diabetes or high blood pressure or as a timer for medications. It allows access to medical specialists in large health facilities. It can also be used as a central environmental control for such things as heat, lights, security systems, and safety features.



Walking Cane

"Consumers adopt technology that is useful throughout the life cycle, and several of these products encourage independent living in later life."

—Brink

Potential Assistive Technology Devices

The following tables offer solutions that can make daily living tasks easier to accomplish. These tables are merely a representation of equipment available that addresses common problems older adults may experience.

MUSCLE AND BONE ENHANCERS

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Weak joints and muscles</i>	<i>Orthotics for the ankle and foot, built up shoes</i>
<i>Loss of limb, hand, foot</i>	<i>Prosthetics including artificial limbs, hands, and feet</i>

VISION ENHANCERS

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Low Vision</i>	<i>Eye glasses, large print playing cards, card holders, screen magnifier for computer or TV, large button telephone, bright colored objects</i>
<i>Blind</i>	<i>Braille books, books on tape, guide cane, screen reader for computer</i>



Lighted magnifier



Telephone with large buttons and numbers



AUDITORY ENHANCERS

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Hard of hearing</i>	<i>Hearing aids, amplified telephones, visual alerting systems, head phones for personal control of sound on TV or stereo, or at church or concerts</i>
<i>Deafness</i>	<i>Written communication tools, visual alerting systems, text telephone (TTY)</i>

ALTERNATIVE KEYBOARDS

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Limited range of motion, limited use of hands, fingers or arms, limited strength</i>	<i>Communication and work related devices; alternatives to the standard computer keyboard used for typing in data; fist or foot keyboards, switches, mouth controls, joysticks, light pens, touch screens, and breath activated switches</i>

ENVIRONMENTAL CONTROL UNITS

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Limited strength, limited range of motion, limited reach and mobility, low vision, hard of hearing</i>	<i>Adaptations of timers, telephones, light switches, switches which can be activated by pressure, eyebrows, breath; text telephones, control mechanisms with sonar sensing devices, adaptations of existing tools, personal pagers, alarm systems, visual signalers</i>

ORGANIZATIONAL AND INSTRUCTIONAL DEVICES

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Forgetfulness, confused thinking, memory loss</i>	<i>Pill dispensers, electronic calendars, timers, specifically designed computer software such as computer-assisted instructional programs, information management and record keeping programs</i>



Daily pill organizer



Walker

MOBILITY DEVICES

PROBLEM	POTENTIAL ASSISTIVE DEVICES
<i>Difficulty walking, loss of leg and lower body strength</i>	<i>Canes, walkers, wheelchairs, lifts, modified vans, and power scooters</i>



What are Home Modifications?

Home modifications are assistive technology that make it easier for a person to overcome environmental problems including any feature of the home that is unsafe, that restricts access and limits task performance, or that results in discomfort. In the AARP handbook, *THE DO-ABLE RENEWABLE HOME*, John Salmen defines four categories of home modification:

- Universal design—life-span designs applied to a new home that work for everyone regardless of age or physical abilities (thirty-two inch wide doors, lever handles, and full length mirrors that accommodate everyone including wheelchair users),
- Adaptability—installation of adjustable sinks, counters, and grab bars so that they can be moved to different heights for different people,
- Accessibility—application of public building codes to private homes for easy accessibility both outside and inside the home,
- Accessible route—a continuous pathway that is free of hazards and abrupt changes in level that connects all important areas of the home.

The use of assistive devices and home modifications for eliminating barriers in the homes of older persons is becoming more commonplace as health care professionals and building contractors gain expertise in these areas. Local hardware or electronics stores and home catalogs provide hundreds of useful items such as:

- Remote control switches for electric lights
- Emergency 24-hour monitoring systems
- Ergonomic tools and kitchen utensils
- Travel aids such as electronic maps
- Telephone amplifiers and loud ring signalers



Adaptor lever for doorknobs

Commonly Used Home Modifications

In our homes, we become accustomed to environmental problems that develop over time, and we may not even be aware of simple solutions that are inexpensive and easy to implement. It is important for older persons to learn about the possibilities for improving home environments. The following table is designed to serve as a guide to assistive technologies and home modifications (environmental interventions) that make homes safer and more convenient.

KITCHEN	
PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Open flames and burners	Microwave, electric toaster oven, hot plate, automatic shut-off crock pot, meal delivery services, frozen dinners
Difficulty reaching items	Adjustable height counters, cupboards; pull out drawers, lazy susans, wall storage rack; remove cabinet doors; reacher, place commonly used items in easy to reach areas,
Hard to turn on faucet/stove	Lever-style faucet, "T" turning handle
Carrying items	Slide across counter, walker basket or tray, bridge items surface to surface, eat at counter sitting on stool
Difficulty seeing	Adequate lighting, contrasting colored china, placemats, napkins, utensils with brightly colored handles
Stove timer not audible	Timers that vibrate



Under-counter jar opener

LIVING ROOM

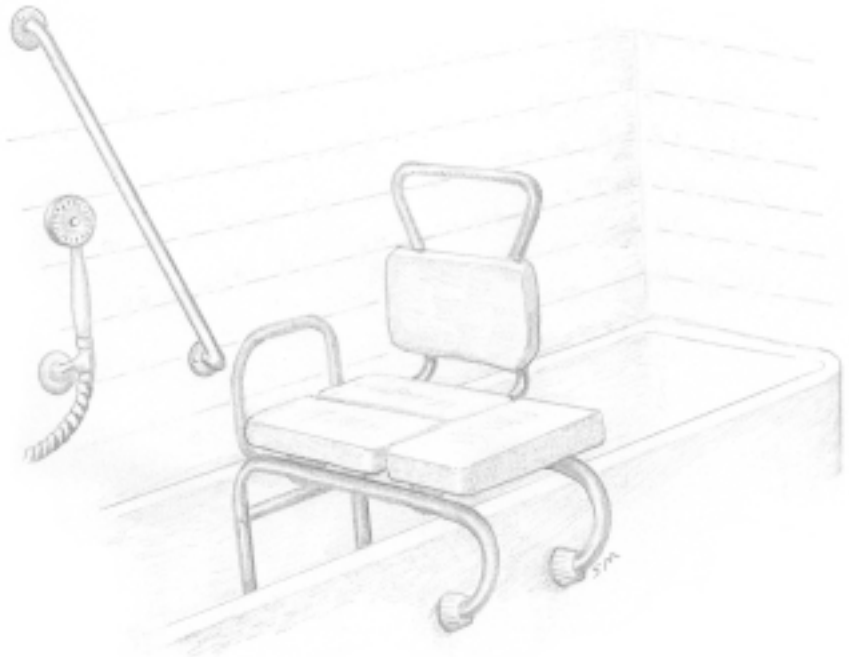
PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Soft low chair	Board under cushion, pillow or folded blanket to raise seat, blocks or platform under legs, automatic seat lift/chair; good arm rests to push on, firm back and seat cushions
Swivel and rocking chairs	Device to block motion
Obstructing furniture	Relocate or remove furniture to clear paths
Extension cords	Run cords along walls or under sturdy furniture, eliminate unnecessary ones, use power strips with breakers if possible
Accessing and seeing light switches	Touch-sensitive switches, voice activated light switches, illuminated wall switches, install light switch plates and sockets that contrast with wall paper or paint color
Can't hear TV	FM headset to increase volume, text captioning

BEDROOM

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Rolling bed	Remove wheels, block against wall
Bed too low	Leg extensions, blocks, second mattress, adjustable height hospital bed
Getting in/out of bed	Portable bed rail
Lighting	Bedside light, night light, flashlight (attaches to walker or cane), remote controlled switches, lamp switch extension lever, touch lamp, touch light extension control
Sliding rugs	Remove, tack down; use rubber back or two sided tape, use rubber mat under throw rugs
Slippery floor	Non-skid wax, no wax, rubber soled footwear
Far from bathroom	Mobility aid next to bed, bedside commode, urinal
Night-time calls	Bedside phone, cordless phone, intercom, buzzer
Access to clothes	Place clothes in easy to reach drawers, shelves, or hangers
Can't hear clock	Clock with light and vibrator attachment
Can't see clock	Large faced clock radio, braille alarm clock, talking alarm clock

BATHROOM

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Getting on/off toilet	Raised seat, side safety bars, grab bars
Getting in/out of tub	Grab bars, bath stool/chair, transfer bench, hand-held shower; rubber mat, hydraulic lift bath seat
Slippery or wet floors	Non-skid rugs or mats
Hot water/hot pipe burns	Turn down thermostat, install anti-scald device, wrap exposed pipes
Dizziness standing at sink	Sit on stool, grab bar at sink
Difficulty seeing	Adequate lighting, clear plastic shower curtain, toilet seat cover or seat that contrasts with walls and floor; adjustable mirror magnifier
Doorway too narrow	Leave wheelchair at door and use walker; install off-set door hinge



Bath bench with hand-held shower and grab bar

STEPS/STAIRS

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Cannot negotiate stairs	Stair glide, lift, elevator; ramp (permanent, portable or removable), practice ability to bump up/down stairs on buttocks in emergencies
No handrails	Install at least one side (check stability)
Loose rugs	Remove or nail down to wooden steps
Difficulty seeing	Adequate lighting, mark edge of steps with brightly colored tape (at least top and bottom ones)
Inability to use walker on stairs	Keep second walker or wheelchair at top or bottom of stairs

TELEPHONE

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Difficulty reaching	Cordless phone, inform friends to give you 10 rings, clear path, headset cordless phone, answering machine and call back, remote answer phone
Difficulty hearing ringing	Ring amplifier, blinking or flashing lights, vibration
Difficulty hearing other person	Volume control, text telephone (TTY, TDD), headset
Difficulty holding receiver	Headset, speaker phone, adapted handles
Difficulty dialing numbers	Preset memory-dial, large buttons and numbers, voice activated dialing; all phones the same model with same preset memory in case of crisis

MEDICATIONS

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Difficulty reading label	Use magnifying glass, good lighting, large print
Difficulty remembering medication schedule	Medication organizer, automatic pill dispenser, organize pills in envelopes with time and date, houseclean all old medications, pharmacists fill pill dispensers weekly (for fee), arrange set time for relative or friend to call as a reminder, pocket timer with vibrator
Difficulty opening	Use pill cap opener, have dispensers filled by pharmacist

HOME MANAGEMENT

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Laundry	Easy to access (basement, stairs, etc.), install washer/dryer on main floor; sit on stool to access clothes in dryer, good lighting; fold laundry sitting at table, carry laundry in bag on stairs; use
Mail	Easy to access mailbox, mail basket on door, ask carrier to place in a specific location (same with paper carrier), install mail-slot,
Housekeeping	Long-handled sponge, dust pan, lightweight vacuum
Controlling thermostat	Mount in accessible location, large print numbers (available

SAFETY

PROBLEM	POTENTIAL MODIFICATIONS/INTERVENTIONS
Difficulty locking doors	Remote controlled door lock, door wedge
Difficulty opening door and knowing who is there	Automatic door openers, intercom at door, lever doorknob handles, video intercom
Opening/closing windows/shades	Remote controlled windows and shades, lever and crank
Can't hear alarms, smoke detectors, phone ringing, or doorbell	Blinking lights, vibrating surfaces
Access to emergency exit	Must have alternative means of exiting home in case of emergency; fire blanket, practice using exit route
Lighting	Illumination 1-2 feet from object being viewed, change bulbs if dim or burned out, adequate lighting in stairways and hallways, night-lights
Glare	Light-colored sheer curtains on windows with direct sunlight; gradual decrease in illumination from foreground to background
Dizziness, falling in home	Wear emergency pager that keeps you in touch with a hotline in your community, minimize clutter, cushion sharp edges

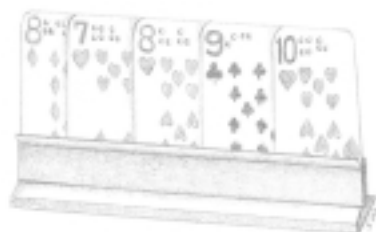
LEISURE

PROBLEM	POTENTIAL MODIFICATIONS/ INTERVENTIONS
Can't hear television	Personal listening device with amplifier (several commercial brands available, compatible with hearing aids), closed captioning
Complicated remote control	Simple remote with large buttons, universal remote control, voice activated remote control, clapper on/off switch
Can't see cards, can't shuffle or hold cards	Large print cards, automatic shuffler, card holder
Can't read small print	Magnifying glass holder, print enlargement system, scanner with electronic voice output
Glare on reading material	Use focused light source, avoid glossy paper for reading material, black ink vs. blue or pencil
Can't hold books	Books on tape, scanner with electronic voice output, book holder
Can't use keyboard	Voice recognition screen, touch screen; alternative keyboards such as fist or foot switches
Can't see television	TV magnifier



Ergonomic garden tools

GUIDELINES FOR SELECTING ASSISTIVE TECHNOLOGY FOR OLDER PERSONS



*Large-print cards
with card holder*

Assessment and evaluation for the purpose of getting assistive technology devices and services is not a neutral process. It is affected by subjective interpretation, values and emotions. For persons who are older, it involves making choices about assistive technologies may affect their self esteem and their future. For some, those choices can mean the difference between living at home and moving to a care facility. For these reasons, it is essential to complete the assessment from the perspective of the person. It is the primary job of a professional making the assessment to guide a person who is older (and family members or primary caregivers) through the steps of the assessment procedure, to get input at every stage, and to respond to questions honestly and thoughtfully.

It may not be necessary to complete every step of the assessment process for each person. However, if an individual appears to have complex needs, following these procedures will ensure the selection of the best possible assistive devices or home modifications to meet those needs. This is important for several reasons. First, research confirms that as many as one-third of all devices purchased, most with taxpayer dollars, are abandoned within one year after acquisition. Second, it is very important that older persons are comfortable with the assistive devices provided to them. Research suggests that unless older persons are comfortable with an assistive device, they will not use it. Lastly, using these assessment procedures ensures that the most cost-effective intervention is selected for a person.

Guidelines for Assessment

- Step 1 Gather information
- Step 2 Conduct direct observation
- Step 3 Develop problem statement
- Step 4 Conduct formal assessment of abilities and environment
- Step 5 Explore possible interventions
- Step 6 Try out possible interventions
- Step 7 Modify interventions (if needed)
- Step 8 Implement and train older person
- Step 9 Monitor

Steps in Selecting and Obtaining Assistive Technology

1. Determine the Goal

Define your main goal. What do you want to accomplish with the assistive technology device? What will the technology enable you to do that you are currently limited in doing?

2. Complete Assessments

Next, determine the assessment team if necessary. Assessment is a complex task which requires input from you, family members, school and medical professionals, co-workers, and caregivers. This includes anyone who will frequently work with you or the technology. If funding is tied to medical diagnoses, there may be formal requirements that specific professionals be involved and certain documentation be obtained. Including the appropriate individuals on the assessment team is vital to a successful outcome.

Assess the Prospective Consumer

An assessment should include a precise measurement of your sensory, cognitive, and motor abilities and limitations. What functions do you need to perform, but are unable to? What type of assistance do you need? Physicians, teachers, therapists, and family members can provide valuable information about functional limitations and potential solutions.

Assess the Environment

Will the technology enable you to achieve desired goals in all the environments where the technology is likely to be used? What other people will be interacting with you and the technology in these various settings?

Assess the Available Technology

If choices are available, what device, adaptation, or system is the best match with your needs and the environments in which you will function? Is there a low tech device which will adequately meet your needs? What types of high tech devices may help you perform the task? Which device(s) allows the greatest independence? How long will it take to learn how to operate the device? If the device will be used in more than one setting, is it easy to transport from place to place? How safe is the device, both for you, and for others who may work with it? Do you feel comfortable with the way that

*“If I am the person being
assessed, let me in on the
process. See me, hear me,
know who I am.”*

-unknown



*Augmentative
communication device (an
alternative device to speech)*

“Information technology permits mass customization. By feeding in the individual characteristics of the consumer, a customized product can be generated. This is particularly valuable for older people who vary considerably in abilities.”

—Brink

the technology looks, feels, and sounds? How long lasting will this solution potentially be?

3. Choose a Device/System

The Virginia Assistive Technology System (VATS) has extensive information on a wide range of devices and adaptations. The information specialists can discuss your needs with you and furnish information about specific devices and manufacturers. They may also be able to direct you to additional sources of information or to vendors in your area.

Other Things to Consider when Evaluating a Device

Does this device represent the simplest, most efficient way to accomplish the task? Are there less expensive devices that serve the purpose as well? Does the device work effectively? Is the device convenient to use in the environment? Are different devices needed in different environments? Is the device safe to use? Does the device stand up well to normal use? Does the device have a warranty? Are sales and service people knowledgeable and helpful? Are repair services available and what do they cost? Does the manufacturer/dealer provide training? How much does it cost? Can you operate the device with a minimum of assistance? Is the device attractive and will it fit into your lifestyle? Is it age, gender, and culturally appropriate? Will the device soon be outdated? Do the benefits provided by the device justify the cost? Is the device available for a trial period before purchase?

4. Select a Vendor

It is not enough that a particular vendor sells the piece of equipment being considered for purchase. If the equipment is purchased and then breaks down, dealer service becomes essential. An important consideration in buying equipment should be the dealer's consumer responsiveness, professionalism, and service.

Some Questions to Ask about the Dealer

How long has the dealer been in business? What is his/her knowledge of disabilities, and of the equipment being sold? How was that knowledge gained? Does that dealer participate in continuing education to stay current on new developments in technology and rehabilitation? How long has the dealer supplied the particular device? What is the dealer's responsibility if errors occur in measuring, ordering, assembling, or delivering the equipment? Does the dealer provide training or refer to other sources of training? Does the dealer carry professional liability insurance? Is the dealer willing to provide the names of previous customers using similar equipment as references? Does the dealer provide technical support for the device

with a toll free number? Does the dealer have in-house service people and adequate parts inventory to locally provide service? What is the average or typical turnaround time for a repair? Will the dealer provide a written estimate of cost and time for a repair? Will the dealer make comparable loaner equipment available during a repair? Does the dealer provide a warranty on service or customization of equipment?

5. Seek Funding

The cost of assistive technology devices range in price from quite inexpensive to extremely expensive. For example, using a household ruler to put on your shoes is inexpensive, yet a wheelchair/seating system can cost as much as a car. Finding assistance with funding may take considerable time and effort, so you should begin to investigate funding sources at the same time you start looking at technology.

Major sources of third party payments for the purchase of assistive technology may include private insurance, Vocational Rehabilitation, Medicaid, Medicare, Centers for Independent Living, as well as other disability and service organizations. Determining which agencies you are eligible for, filling out the required paperwork, and monitoring the approval process takes time, patience, and attention to detail. It is critical to use the right words to suit the particular agency you are seeking money from. It's also important to be specific when you document the need for, and projected outcome of, assistive technology.

Funding Documentation should include:

- A written statement of medical need from physicians or other health professionals. If you have had an evaluation from a rehabilitation professional, include this report.
- A description of your problems resulting from the disability. This description can come from the doctor or other professional who evaluated you.
- A description of how the technology benefits or helps you. Be sure to point out how money will be saved if use of the equipment reduces attendant care.
- A clear statement, based on assessment, that you are a good candidate because you have the cognitive and physical capabilities necessary for using the technology.

It is very important to provide proper documentation and use correct wording and procedures when requesting funding. Initial requests for funding are frequently turned down, but appeals can be successful.

There may be costs beyond the price of the device itself that need to be

*“The challenge for all of us
is to keep up with the
technology revolution
around us.”*

–Kelly

considered. For example, software, upgrades, customization, maintenance, insurance, and training may all add to the price of the equipment. Beware of these “hidden” costs.

6. Determine Training Needs

The arrival of equipment is not the end of the process. You and anyone else who works with the device, should receive appropriate training. This may be provided by the dealer, a representative of the manufacturer, or a staff person from an educational or medical institution. Training ensures that the technology is used effectively, safely, and consistently in all relevant settings. Proper use and maintenance also minimizes the cost and inconvenience of breakdowns and repairs.

7. Conduct Follow-up

Short-term follow-up should be performed within a couple of months, after the individual has had a chance to become familiar with the technology.

Considerations for Follow-up Evaluation:

- Does the assistive technology permit you to achieve the stated functional goals?
- Are you comfortable and proficient with the technology, or making good progress in learning more complex technology systems? If not, what changes can be made to ease this process?
- Are equipment adjustments or additional training needed?

Selecting the most appropriate device or home modification can be a simple or complex process. Regardless, the main focus of this process should be on your needs, not the technology. For some persons, a team approach to assessment may be the most appropriate. In other situations, no professional involvement is needed. The steps described above, whether used in part or whole, will ensure that the most appropriate device or home modification is selected. In turn, this will promote the effective use of assistive technology or home modifications while being cost effective.

There are several keys to successful assessment of technology. The process must always be directed by you. It should be done with understanding and respect. Consideration given to your personal values, preferences and choices leads to satisfaction with an assistive technology device.



*Augmentative Communication Device
with Jellybean switch*

FUNDING FOR ASSISTIVE TECHNOLOGY AND HOME MODIFICATIONS

Sources for financial assistance for the purchase of assistive technology are many and varied. Each has different eligibility criteria. Most require that an application for services or financial assistance be completed. All programs have specific rules regarding what equipment can be purchased. At the present time, the limits on funding assistive devices and/or adaptive equipment are set by Medicare, Medicaid and other insurance programs in our country, or by the individual's ability to pay for his or her own technology.

Below is a list of possible funding agencies for assistive technology devices and home modifications that meet the needs of older persons.

At the time of your assessment, it is important to focus on how you plan to pay for the necessary assistive technology devices, services or home modifications. It is of paramount importance to document the results of the assessment in detail when working with funding agencies. If you plan to pay for the technology yourself, you will probably not be as concerned about detailed documentation.

Funding Sources

Note:

If you request funding from Medicare, Medicaid or another insurance company, you will need to follow specific guidelines. In order to enter any funding system, it is necessary to verify that the request is in keeping with the focus of that system. Although most agencies have their own forms and procedures, there are some helpful strategies that can save you time.

Medicare: The federal health insurance program, which provides coverage for a limited amount of medical expenses and limited types of medical services.

Medicaid: A joint state-federal program, which covers some equipment if it is considered medically necessary. Medicaid services are based on financial need. Currently the program covers a range of durable medical supplies and services.

Vocational Rehabilitation Services: A federal agency which provides information, evaluation services, training and funding for technology to help people with disabilities pursue vocational goals and live more independently.

Private Insurance: Some insurance plans will buy equipment but it will depend on the policy. The equipment must be considered medically necessary and will require a doctor's prescription.

Non-Profit Disability Associations: may be able to loan you equipment or tell you about other funding sources or support groups. A partial listing of these agencies in Virginia include:

National Easter Seal Society

Muscular Dystrophy Association

United Cerebral Palsy Association

Foundations and Clubs: organizations such as the Elks, Moose, and the Lions may offer money to buy technology. Check for the local foundations in your area.

Guidelines for Securing Funding for Assistive Devices

"Proper evaluation and documentation completed by qualified individuals is the most important part of the funding process "

-Sharp

Guidelines for Funding Request

- Step 1 Develop documentation checklist
- Step 2 Document the needs assessment
- Step 3 Document evaluation of the technology device/services
- Step 4 Determine the funding sources
- Step 5 Determine if alternative equipment will meet the need
- Step 6 Develop funding justification
- Step 7 Write letter of transmittal
- Step 8 Receive authorization from funding agency
- Step 9 Search for co-payment options (if necessary)
- Step 10 Proceed with appeals process (if necessary)

The major objective of these guidelines is to help you and/or a qualified professional prepare a formal funding request package. Typically, any funding agent will move cases along only when all of the paperwork is submitted. Forward the funding request package to the agency only after all required documentation is complete. This is the opening documentation of your case file with any funding agency.

Developing a Funding Request

Prepare a formal funding request package. Include the documentation of the assessment/evaluation, the justification, and any other paperwork the agency requires.

Although they may appear complex and time-consuming, following these ten steps carefully will help simplify the procedure for obtaining funding for needed technology.

Step 1 - Develop a documentation checklist of necessary forms and procedures

Prior to submitting the request, develop a documentation checklist of necessary forms and procedures. Start your checklist with the documents outlined below and add to it as you proceed through the steps. No matter which funding sources are approached for securing assistive technology, you must document the need, the evaluation and the justification.

Checklist:

Written referral from a qualified professional,
Evaluation that documents the needed technology device, service, or home modification,
Physician's prescription,
Letter of medical necessity from the physician,
Letters of medical necessity from other professionals involved in the assessment,
General discussion/description of medical diagnosis that provides further information about needs,
Explanation of the individual's functional skills without the equipment and how those skills will be improved with the assistive technology,
Discussion of the assistive technology with specifications for the individual,
Specifications of the equipment including cost and photograph or catalog picture (gathered in Step 2).

Step 2 - Document the "needs assessment"

A professional or team of professionals, such as a physician and physical therapist, will conduct the needs assessment and identify the aspect of the consumer's life in which technology will be of help. The assistive technology need will fall primarily into one functional area of the person's life. The assessment must address the older person's needs as specifically as possible from a medical or vocational perspective; or, from the perspective of increased independence, depending on the funding source.

Step 3 - Document evaluation of technology device and services needed

To get a clear picture of the specific assistive technology recommended device, and all related services and their costs, you must consider:

- Which type of assistive technology will improve the level of function,
- Who will evaluate the need and technology,
- What services are needed to prescribe, train and follow up with the device,
- What the costs will be.

Physical therapists, speech therapists, and occupational therapists may be the primary evaluators; however, it will still be necessary to get a prescription from a physician when dealing with Medicaid or other insurance.

At the same time, gather other justification identified in Step 6.

Provide a well-written statement of the evaluation/diagnosis. It should be concise, direct, and well organized. Minimally, the evaluation write-up should be organized in such a way as to reflect:

- The background and history of the person,
- The current status of the person,
- Recommendations to improve the person's condition.

Adjustable work table



*“The most commonly used
assistive technology device is
a walking cane.”*

—National Center for Health
Statistics

Step 4 - Determine the funding sources

Consider all possible options for paying for the assistive technology device or services, and/or home modifications. What are the consumer’s personal resources? Can he/she pay for any part of the equipment or services? What about a low-cost bank loan? Is the consumer eligible for public services? Which insurance plan does he/she have?

Step 5 - Determine if alternative equipment will meet the need

Based on the past history of funding patterns and denials to authorize money for required assistive technology, you may need to research some alternatives. Can this piece of equipment be made? Is there another piece of equipment that can meet the need? Can it be borrowed? You can rely on a technology specialist at the Assistive Technology Resource Center in your region for most of this information.

Step 6 - Develop funding justification

A case manager, Durable Medical Equipment (DME) dealer, or you (or your advocate) will usually gather all the required documentation. Find out from the funding source exactly what is needed. The funding justification is the bridge between the recommendations in the evaluation and the issues that funding sources often raise when reviewing a request. It should accompany the evaluation completed in Step 3.

A funding justification is different from an evaluation. An evaluation determines what tool or equipment a person needs. A funding justification states how that tool would make the person’s work easier or make life better in some way. Minimally, an effective funding justification will:

- State the need that the assistive technology will address,
- Document the person’s proven ability to use the assistive technology,
- Explain why this technology is the best solution to the person’s problem,
- Include an explanation of any other approaches that were tried but were unsuccessful,
- Include pictures or videotapes of the person using the technology, especially if graphic change occurs as a result.

The funding justification clearly builds the case for the funding request, starting from an assumption that the evaluation identified a valid need.

Step 7 - Write letter of transmittal

First, organize the funding request package. All pages of the evaluation and the funding justification should be clearly labeled with the consumer’s name, the document name and the date. Such labeling will help ensure that, as the request is processed, pages will not be lost.

The transmittal letter should:

- List and identify the documentation in the request package by name and/or form number,
- Indicate how many copies of each document are in the package,
- Give the name of the consumer,
- Provide a name and phone number of a contact person,
- Request that the funding agency get in touch with the contact person immediately if necessary documentation is missing or if processing the claim will be delayed for any reason.

Together, all of the documents and letters listed in the above seven steps make up the funding request package, which should be submitted to the funding agency only when your file is complete.

Step 8 - Receive authorization from funding agency

Authorization will include written approval for the amount of money that has been authorized by the funding agency for buying the specified technology. If the amount authorized covers the full purchase price, the vendor will be able to process the order and the equipment. If the full amount of money is not approved, move to Step 9. If funding is denied, go to Step 10.

Step 9 - Search for co-payment options (if necessary)

The consumer may have to pay part of the cost of the assistive technology. Can he/she secure a bank loan or a home equity loan? This is a good time to seek assistance from community and philanthropic organizations. If funding is denied, go to Step 10.

Step 10 - Proceed with appeals process (if necessary)

This process is common when it comes to securing funding for assistive technology. Try to determine why your request was denied and then find out if supplying the funding source with additional information would help. Submit the new information to the person who is handling your case. At this point in the process you may want to seek legal advocacy.

As you can envision, working with funding sources requires patience and perseverance as well as attention to detail. Communicate in writing whenever possible and direct calls and letters to the same person each time. Maintain frequent communication with the funding source to keep the process on track. Keeping careful records and documentation of all communication can speed up the funding process for you.

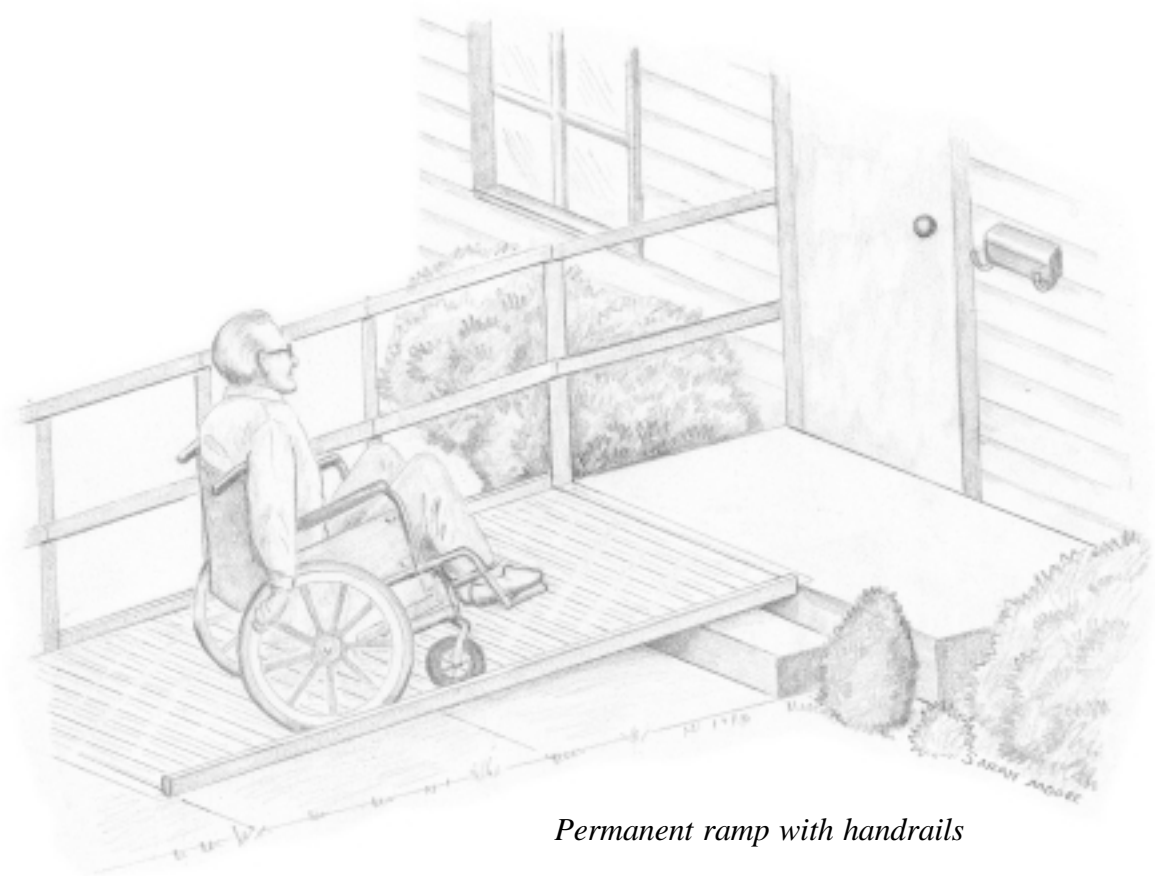
“The most common home adaptation is the use of handrails, followed by ramps, extra-wide doors, and raised toilets.”

—National Center for Health
Statistics

Summary

Assistive technology, with its wide array of devices, is redefining what is possible for today's older persons. These devices can help elders perform tasks around home, enjoy recreation and leisure activities, communicate with family and friends, regulate medications, and ensure safety and security. Research suggests that using assistive technology is playing an increasingly significant role in helping older people to remain living in their homes and communities longer, thus reducing reliance on expensive long term care services.

Virginia's older citizens deserve full access to assistive technology in order to realize their potential to remain independent and productive. More importantly, using assistive technology can help them realize their dreams of living long comfortable lives in their own homes.



Permanent ramp with handrails

SIMPLE ASSISTIVE TECHNOLOGY AND HOME MODIFICATION TIPS

The following suggestions will help make your home barrier-free to accommodate your accessibility needs. This, in turn, will make your home more comfortable.

- **Kitchen area:**
- Install a mirror above the stovetop. This allows wheelchair users to easily see what is cooking.
- Install Braille controls. Many appliance manufacturers will provide Braille controls at no extra cost.
- Place a mixing bowl in a top drawer; close the drawer as much as possible. This will keep bowl in place while working.
- Add straps to the refrigerator door, drawer handles, and cabinets to make pulling easier.
- Attach leg extenders to chairs and tables to make standing and sitting less difficult.
- Replace shelves with pull out trays, bins, pot racks, etc. Add lazy Susan shelves inside corner cabinets.
- Remove cabinet doors in front of sink and food-preparation area to allow legroom for wheelchairs.
- Mount all wall switches and electrical outlets where they are easy to reach or add switch and electrical outlet extenders to existing ones where possible.
- Use a rolling cart with shelves and hooks for utensils as a useful kitchen aid.
- Add a wall storage rack to keep frequently used items easily accessible.
- Mount a single-lever faucet close to edge of counter for easier accessibility.
- Add oversized cabinet knobs or tie rope loops to knobs to make them easier to grasp or pull.
- Use a vibrating timer in pocket or waist band hook to know when food is finished cooking.



Ergonomic cooking utensils

- **Bathroom area:**

- Install a shower bench with grab bars.
- Build low threshold to keep water in shower area but will allow wheel chair access.
- Remove cabinets under and/or lower sink to allow for wheelchair.
- Insulated or recess hot water and drainpipe to protect legs of wheelchair users.
- Mount mirrors low enough to be viewed from a wheelchair, or simply angle mirror downward.
- Replace shelves with pull out trays, bins, pot racks, etc. Add lazy Susan shelves inside corner cabinets.
- Remove cabinet doors in front of sink and food-preparation area to allow legroom for wheelchairs.
- Mount all wall switches and electrical outlets where they are easy to reach or add switch and electrical outlet extenders to existing ones where possible.
- Install grab bars that support a minimum of 250 lbs. Some codes require standard height above floor or fixtures, but bars should be adjusted to suit users.
- Hang bathroom door to swing outward for exit safety and to allow more room in bath area.
- Mount grab bars where support may be needed, such as in shower, bathtub, above toilet, along doors, etc.
- Install hand held shower unit which offers more flexibility than fixed shower head.
- Allow 5-ft turning radius for wheelchair. A minimum bathroom area of 47.5 sq. feet (including fixtures) is recommended.
- Install water leak alarm to know when toilet or hot water tank malfunctions.

- **Other house areas:**

- Build a short ramp to eliminate the steps between split-level floors. A grab bar may be added to the doorway to provide extra pull.
- Widen doorways to the minimum clearance of 32 inches, which is required for persons using wheelchairs or walkers.
- Install second peephole viewer at a height of 42 inches for wheelchair users.
- Install wall outlets at a minimum of 28 inches above floor.
- Add an adjustable bracket to make clothes rack accessible to wheelchair users.
- Adjust the height for wall mounted objects such as thermostats, telephones, curtain pulls and switches to the recommended maximum of 48 inches.
- Modify door guides to a height of one half inch. Special low clearance thresholds are available for track type sliding doors.
- Use tight weave carpet with or tile to make wheelchair use and walking easier.
- Install threshold strip to ease transition between floor and carpet.
- Build ramps with the recommended ramp pitch: 1 inch of rise for each foot of distance (1:12). Very short ramps may be steeper, but grab bars must be installed as aids.
- Use a switchback design to reduce ramp run.
- Mount outlets and wall switches at chair height. All bathroom electrical outlets should be shock-protected with ground-fault circuit interrupter.

ASSISTIVE TECHNOLOGY RESOURCES

Legislation Affecting Assistive Technology

Recent public policies emphasize the importance of increased access to assistive technology. They include:

- The Americans with Disabilities Act of 1989,
- The Technology-Related Assistance for Individuals with Disabilities Act of 1994 as amended in Public Law 103-218,
- The Rehabilitation Act Amendments of 1991,
- The Individuals with Disabilities Education Act of 1975.

These laws have contributed to advancements in and increased availability of assistive technologies.

Research Findings on the Use of Assistive Technology by Older Americans

This section briefly describes the results of three studies concerning the use and effectiveness of assistive technology for older Americans.

According to one study conducted by the National Center on Health Statistics (LaPlante, et al.1994), the use of assistive technology devices grew rapidly in the decade of the 1980's. This growth is a result of two factors: the growing number and availability of devices, and the increased age of the general population. In 1990, thirteen million Americans, about 5.3 percent of the population, were using assistive technology devices to accommodate physical impairments. More people use assistive devices to compensate for mobility impairments than any other general type of impairment. The walking cane is the single most used assistive technology device. Others, in order of prevalence, include hearing aids, walkers, wheelchairs, and back braces. Nearly 3 percent of all Americans lived in homes that were specially adapted to accommodate impairments.

In 1993, the Rehabilitation Engineering Research Center on Aging at the University of Buffalo completed a study entitled "Comparison of Assistive Device Use and Needs of Home-Based older Persons with Different Impairments." This study examined assistive devices used by non-institutionalized older persons with visual, cognitive, and physical impairments. The sample population included 157 subjects living in New York who were assigned to one of seven groups. The participants in this study were interviewed face-to-face to determine the current use of assistive devices. The study found that:

- Participants owned an average of 13.7 devices each,

- Persons with vision and physical impairments owned the most devices (20 devices per person)
- Persons with cognitive impairments owned the fewest,
- Most of the devices owned by older persons related closely to the impairment that identified the group.

Although very little is known about the use of assistive technology by older persons in Virginia, on the average for the nation, older persons use an of 7.3 devices.

Technology Training Recommendations for Older Persons

Clinicians who recommend assistive technology for your and teach you how to use it should keep the following recommendations in mind:

- Technology should be perceived as needed and meaningful and linked into the lifestyle of the person.
- Cautions and disbelief in one's capability may be an obstacle in accepting technology and must be considered when creating the learning environment.
- A generous amount of time as well as repeated short training sessions should be allowed.
- More stress should be placed on the practical application of the device than on its technical features.
- Cues will favorably affect self efficacy in handling new products.
- Training sessions should be held in the home or natural meeting places of the person.
- The instructors must be well known by the person or introduced well in advance of the training.
- The attitudes of the instructors towards the person must be positive and realistic.

RESOURCES

Virginia Organizations and Resources

Virginia Assistive Technology System (VATS)

The Virginia Assistive Technology System, which began operations in September 1992, assists Virginians with disabilities to acquire the assistive technology they need to live more independent and productive lives. The project is funded by a grant from the U. S. Department of Education and the National Institute on Disability Rehabilitation and Research. The goal of the Virginia Assistive Technology System is to increase the availability of appropriate assistive technologies for Virginia citizens with disabilities. VATS conducts activities in three broad areas: policy; training and empowerment; and individual advocacy and supports.

Contact: Virginia Assistive Technology System

Virginia Assistive Technology System

8004 Franklin Farms Drive
P.O. Box K-300
Richmond, VA 23288-0300
(804) 662-9990
1-800-552-5019
(804) 662-9478 Fax
www.vats.org

Assistive Technology Regional Sites

There are three regional "assistive technology sites" located throughout the Commonwealth of Virginia. The regional sites are under contract to the Virginia Assistive Technology System. They serve consumers and service providers with technical assistance and one-on-one consultation about assistive technology, funding sources, used equipment and equipment loan programs, and training and technical assistance. The regional sites are among the agencies responsible for helping older citizens find ways to get the assistive technology they need and to assist in training them to use it.

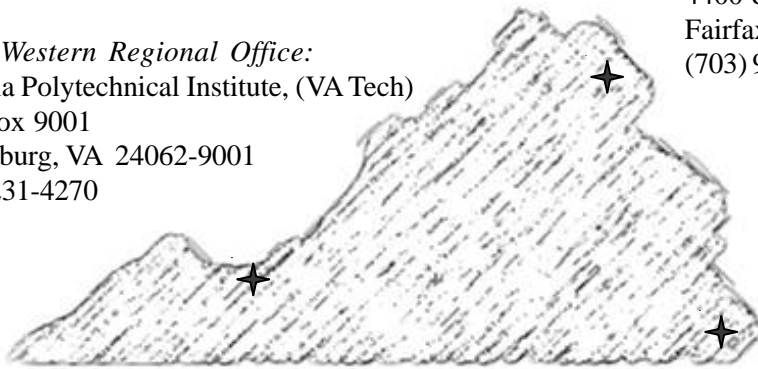
Contact: Regional Assistive Technology Sites

Northern Regional Office:

George Mason University,
Helen A. Keller Institute for
Human disAbilities
4400 University Drive, MSN 1F2
Fairfax, VA 22030-4444
(703) 993-3670

South Western Regional Office:

Virginia Polytechnical Institute, (VA Tech)
P.O. Box 9001
Blacksburg, VA 24062-9001
(540) 231-4270



South Eastern Regional Office:

Old Dominion University
Darden College of Education, Room 137
Norfolk, VA 23529
(757) 683-5773

**Virginia Department for the
Blind and Vision Impaired**

397 Azalea Avenue
Richmond, VA 23227
(804) 371 3140
(800) 622-2155
(804) 371-3351 Fax
www.vdbvi.org

**Virginia Association of the
Blind**

2625 Deerfield Crescent
Chesapeake, VA 23321-2418
(757) 465-7230
(800) 426-2144
(757) 465-7230 Fax
<http://hometown.aol.com/vabind>
vabn@erols.com

**Virginia Department for the
Deaf and Hard of Hearing**

1602 Rolling Hills Dr, Suite 203
Richmond, Virginia 23229-5012
(804) 662-9502 V/TTY |
(800) 552-7917 V TTY
www.vddhh.org
ddhhinfo@ddhh.state.va.us

**Virginia Department for
the Aging**

1610 Forest Avenue, Suite 100
Richmond, VA 23229
(800) 552-3402 (Voice/TTY)
(804) 662-9333
(804) 662-9354 Fax
www.vda.virginia.gov
aging@vda.virginia.gov

Virginia Department for the Blind and Vision Impaired

Mission Statement: The Mission of the Department for the Blind and Vision Impaired (VDBVI) is to enable blind, visually impaired, and deafblind individuals to achieve their maximum level of employment, education, and personal independence.

Eligibility: Persons of all ages who are blind, visually impaired and deafblind.

Virginia Association of the Blind

Mission Statement: The Virginia Association of the Blind (VAB) locates, informs, and assists persons with visual impairment, their families and friends. The program also provides information and referral, peer counseling, monthly meetings, monthly newsletters, seminars, conferences, and workshops. Some financial assistance is provided in cases of emergencies and for educational conferences. Provides accessible computer loan program.

Eligibility: Unrestricted; resident of Virginia; parent/guardian permission if under age.

Virginia Department for the Deaf and Hard of Hearing

Mission Statement: The Virginia Department for the Deaf and Hard of Hearing (VDDHH) works to reduce the communication barriers between persons who are deaf or hard of hearing and their families and the professionals who serve them. VDDHH operates with the full understanding that communication is the most critical issue facing persons who are deaf or hard of hearing. The foundation of all programs at VDDHH is communication - both as a service (through interpreters, technology and other modes) and as a means of sharing information for public awareness (through training and education).

Eligibility: Virginians of all ages who are deaf, hard of hearing, visually impaired or deafblind or who have speech disabilities may be eligible.

Virginia Department for the Aging (VDA)

The Virginia Department for the Aging (VDA) works with 25 local Area Agencies on Aging (AAAs) as well as various other public and private organizations to help older Virginians and their families find the services and information they need. The Department operates the Center for Elder Rights, which is a central point of contact for older Virginians to access information and services.

Mission Statement: To foster the dignity, independence, and security of older Virginians by promoting partnerships with families and communities.

Eligibility: Virginians over the age of 60 or with a disability are eligible.

Virginia Association of Area Agencies on Aging (V4A)

530 E. Main Street, Suite 800

Richmond, Virginia 23219

Phone: (804) 644-2804

Fax: (804) 644-5640

Mission Statement: The mission of the V4A is to build the capacity of its members to help older persons to live with dignity and choices in their homes and communities for as long as possible, and to enhance elder rights.

A network of 25 local agencies, called Area Agencies on Aging or AAAs, provides most of the services for seniors in Virginia communities. Each AAA in Virginia serves a specific territory of counties and cities that share common geographic, demographic, and economic boundaries.

Virginia Area Agencies on Aging:

Alexandria Office of Aging and Adult Services
2525 Mount Vernon Avenue - Unit 5
Alexandria, VA 22301-1159
Phone: 703-838-0920
Fax: 703-838-2355

Appalachian Agency for Senior Citizens, Inc.
216 College Ridge Road, Wardell Industrial Park
P.O. Box 765
Cedar Bluff, VA 24609
Toll-Free: 1-800-656-2272
Phone: 276-964-4915
Fax: 276-963-0130

Arlington Agency on Aging
c/o Department Of Human Services
3033 Wilson Boulevard, Suite 700B
Arlington, VA 22201-3843
Phone: 703-228-1700
Fax: 703-228-1148
TTY: 703-228-1788

Bay Aging
5306 Old Virginia Street
P.O. Box 610
Urbanna, VA 23175-0610
Phone: 804-758-2386
Fax: 804-758-5773

Central Virginia Area Agency on Aging, Inc.
3024 Forest Hills Circle
Lynchburg, VA 24501-2312
Phone: 434-385-9070
Fax: 434-385-9209

Crater District Area Agency on Aging
23 Seyler Drive
Petersburg, VA 23805-9243
Phone: 804-732-7020
Fax: 804-732-7232

District Three Senior Services
4453 Lee Highway
Marion, VA 24354-4269
Toll-Free: 1-800-541-0933
Phone: 276-783-8158
Fax: 276-783-3003

Eastern Shore Agency on Aging
Community Action Agency, Inc.
49 Market Street, P.O. Box 8
Onancock, VA 23417-0008
Toll-Free: 1-800-452-5977
Phone: 757-787-3532
Fax: 757-787-4230

Fairfax Area Agency on Aging
12011 Government Center Parkway, Suite 708
Fairfax, VA 22035-1104
Phone: 703-324-5411
TTY: 703-449-1186
Fax: 703-449-8689

Jefferson Area Board For Aging
674 Hillsdale Drive, Suite 9
Charlottesville, VA 22901-1799
Phone: 434-817-5222
Fax: 434-817-5230

Lake Country Area Agency on Aging
1105 West Danville Street
South Hill, VA 23970-3501
Toll-Free: 1-800-252-4464
Phone: 434-447-7661
Fax: 434-447-4074

LOA Area Agency on Aging, Inc.
706 Campbell Avenue, SW
P.O. Box 14205
Roanoke, VA 24038-4205
Susan Williams, Executive Director
Phone: 540-345-0451
Fax: 540-981-1487

Loudoun County Area Agency on Aging
215 Depot Court SE, 2nd Floor
Leesburg, VA 20175
Phone: 703-777-0257
Fax: 703-771-5161

Mountain Empire Older Citizens, Inc.
1-A Industrial Park Road
P.O. Box 888
Big Stone Gap, VA 24219-0888
Toll-Free: 1-800-252-6362
Phone: 276-523-4202
Fax: 276-523-4208

New River Valley Agency on Aging
141 East Main Street
Pulaski, VA 24301-5029
Toll-Free: 1-866-260-4417
Phone: 540-980-7720 or 639-9677
Fax: 540-980-7724

Peninsula Agency on Aging, Inc.
739 Thimble Shoals Boulevard, Executive Center
Building 1000, Suite 1006
Newport News, VA 23606-3585
Phone: 757-873-0541
Fax: 757-873-1437

Piedmont Senior Resources Area Agency on Aging,
Inc.
Inverness Road & Route 624
P.O. Box 398
Burkeville, VA 23922-0398
Toll-Free: 1-800-995-6918
Phone: 434-767-5588
Fax: 434-767-2529

Prince William Area Agency on Aging
7987 Ashton Avenue, Suite 231
Manassas, VA 22109-8212
Phone: 703-792-6400
Fax: 703-793-7576
TDD: 703-792-6444

Rappahannock Area Agency on Aging, Inc.
171 Warrenton Road
Fredericksburg, VA 22405-1343
Toll-Free: 1-800-262-4012 (Virginia only)
Phone: 540-371-3375
Fax: 540-371-3384

Rappahannock-Rapidan Community Services Board
and Area Agency on Aging
15361 Bradford Road
P.O. Box 1568
Culpeper, VA 22701-1568
Phone: 540-825-3100
Fax: 540-825-6245
TDD: 540-825-7391

Virginia Area Agencies on Aging Continued:

Senior Connections
The Capital Area Agency on Aging, Inc.
24 East Cary Street
Richmond, VA 23219-3796
Toll-Free: 1-800-989-2286
Phone: 804-343-3000
Fax: 804-649-2258

Senior Services of Southeastern Virginia
5 Interstate Corporate Center
6350 Center Drive, Suite 101
Norfolk, VA 23502-4101
Phone: 757-461-9481
Fax: 757-461-1068

Shenandoah Area Agency on Aging, Inc.
207 Mosby Lane
Front Royal, VA 22630-3029
Toll-Free: 1-800-883-4122
Phone: 540-635-7141
Fax: 540-636-7810

Southern Area Agency on Aging, Inc.
433 Commonwealth Boulevard E, Suite A
Martinsville, VA 24112-2020
Toll-Free: 1-800-468-4571
Phone: 276-632-6442
Fax: 276-632-6252

Valley Program for Aging Services, Inc.
325 Pine Avenue, P.O. Box 817
Waynesboro, VA 22980-0603
Toll-Free: 1-800-868-8727
Phone: 540-949-7141
Fax: 540-949-7143



**Department of
Rehabilitation Services**
8004 Franklin Farms Drive
Box K-300,
Richmond, VA 23288-0300
(800) 552-5019 Voice
(800) 464-9950 TTY
(804) 662-7154 Voice/TTY

**Virginia Office on Protection
and Advocacy**
202 N. 9th Street, 9th Floor
Richmond, VA 23219
(804) 225-2024
(800) 552-3962 (Voice/TTY)

SeniorNavigator.com
600 E. Main Street, Suite 360
Richmond, Virginia 23219
(804) 827-1280
(804) 827-1281 (fax)
(866) 393-0957
www.seniornavigator.com
info@seniornavigator.com

**Virginia Adult Day
Services Association**
Box 6374
Richmond, Virginia 23230
(434) 817-5258
<http://www.vadsa.net>

Virginia Department of Rehabilitation Services

Mission Statement: In partnership with people with disabilities and their families, the Virginia Department of Rehabilitative Services (DRS) collaborates with the public and private sectors to provide and advocate for the highest quality services that empower individuals with disabilities to maximize their employment, independence and full inclusion into society.

Eligibility: A person must have a physical or mental disability which results in a substantial handicap to employment; and there must be a reasonable expectation that, with the provision of services, the person will be able to become employed.

Virginia Office on Protection and Advocacy

The Virginia Office for Protection and Advocacy (VOPA) helps with disability-related problems like abuse, neglect, and discrimination. They also help people with disabilities obtain services and treatment. All callers receive help with these problems. Individuals with problems, targeted in our program priorities, may also receive advocacy services and/or legal representation.

Mission Statement: Through zealous and effective advocacy and legal representation to: protect and advance legal, human, and civil rights of persons with disabilities; combat and prevent abuse, neglect, and discrimination; and promote independence, choice, and self-determination by persons with disabilities.

SeniorNavigator.Com

Mission Statement: SeniorNavigator is a 501c3 non-profit organization that provides free information about the health and aging resources available to Virginians. The information focuses on senior related issues such as health and aging, financial concerns, legal questions, health facilities, assisted living and housing, exercise programs, support groups and more.

Eligibility: Unrestricted.

Virginia Adult Day Services Association

Mission Statement: The mission of the Virginia Adult Day Services Association VADSA is to enhance the success of its members through advocacy, education, technical assistance, research and communication services.

Eligibility: Open to professionals and caregivers working in the fields of aging and human services.

Directory of Centers for Independent Living in Virginia

Centers for Independent Living, often referred to as "CILs" are non-residential places of action and coalition, where persons with disabilities learn empowerment and develop the skills necessary to make lifestyle choices. Centers provide services and advocacy to promote the leadership, independence, and productivity of people with disabilities. Centers work with both individuals as well as with the local communities to remove barriers to independence and ensuring equality of persons with disabilities.

Access Independence, Inc.

403B South Loudoun Street,
Winchester, Virginia 22601
(540) 662-4452 V
(540) 722-9693 TTY
(540) 662-4474 FAX
(800) 835-2716 Toll Free

Appalachian Independence Center

230 Charwood Drive,
Abingdon, Virginia 24210
(276) 628-2979 V
(276) 676-0920 TTY
(276) 628-4931 FAX

Blue Ridge Independent Living Center

1502-D Williamson Road NE,
Roanoke, Virginia 24012
(540) 342-1231 V/TTY
(540) 342-9505 FAX

Central Virginia Independent Living Center

2900 West Broad Street,
Richmond, Virginia 23230
(804) 353-6583 TTY
(804) 358-5606 FAX

Clinch Independent Living Services

P. O. Box 2741, East 460,
Grundy, VA 24614
(540) 935-6088 V/TTY
(540) 935-6342 FAX

disAbility Resource Center

409 Progress Street,
Fredericksburg, Virginia 22401
(540) 373-2559 V
(540) 373-5890 TTY
(540) 373-8126 FAX
(800) 648-6324 Toll Free

Eastern Shore Ctr. for Independent Living

4364 Lankford Highway,
Exmore, VA 23350
(757) 414-0100 V
(757) 414-0080 TTY
(757) 414-0205 FAX
(888) 787-2033 Toll Free

Endeppendence Center, Inc.

6320 North Center Drive, Ste.100,
Norfolk, Virginia 23502
(757) 461-8007 V
(757) 461-7527 TTY
(757) 455-8223 FAX

Endeppendence Center of Northern Virginia

3100 Clarendon Boulevard,
Arlington, Virginia 22201
(703) 525-3268 V
(703) 525/3553 TTY
(703) 525-3585 FAX

Independence Empowerment Center

9001 Diggs Rd., Ste. 103,
Manassas, VA 20110
(703) 257-5400 V/TTY
(703) 257-5043 FAX

Independence Resource Center

815 Cherry Avenue,
Charlottesville, VA 22903-3448
(804) 971-9629 V/TTY
(804) 971-8242 FAX

Junction Center for Independent Living

247 W. Morgan Avenue,
Pennington Gap, VA 24277
(540) 546-5093 V/TTY
(540) 546-3360 FAX

Lynchburg Area Center for IL

500 Alleghany Avenue, Ste. 520,
Lynchburg, VA 24501
(804) 528-4971 V
(804) 528-4972 TTY
(804) 528-4976 FAX

Peninsula Center for Independent Living

2021-A Cunningham Drive, Suite 2,
Hampton, VA 23666
(757) 827-0275 V
(757) 827-8800 TTY
(757) 827-0655 FAX

Piedmont Independent Living Center

816 W. Main Street,
Danville, VA 24541
(804) 797-2530 V/TTY
(804) 797-2535
(804) 797-2568 FAX

Valley Associates for Independent Living

1791-A South High Street,
Harrisonburg, VA 22801
(540) 433-6513 V
(540) 438-9265 TTY
(540) 433-6313 FAX

CIL SATELLITES**Crater District CIL Satellite (CVILC)**

2795 S. Crater Road, Ste. 1,
Petersburg, VA 23805-2403
(804) 862-9338 VOICE/TTY
(804) 862-6177 FAX

New River Valley Satellite Office (BRILC)

215 Roanoke Street,
Christiansburg, VA 20473



Major Funding Sources for Assistive Technology in the Commonwealth of Virginia

The Virginia Center on Aging

Mission Statement: To be an interdisciplinary study, research, information and resource facility for the Commonwealth of Virginia utilizing the full capabilities of faculty, staff, libraries, laboratories and clinics for the benefit of older Virginians and the expansion of knowledge pertaining to the aged and to the aging process.

The Virginia Center on Aging

520 N. 12th Street, Room B25
PO Box 980229
Richmond, VA 23298-0229
(804) 828-1525
Fax: (804) 828-7905
www.vcu.edu/vcoa

American Association of Retired Persons (AARP)

Mission Statement: AARP is dedicated to enhancing quality of life for all as we age. We lead positive social change and deliver value to members through information, advocacy and service.

Eligibility: AARP is a nonprofit, nonpartisan membership organization for people age 50 and over.

AARP

707 E. Main St., Suite 910
Richmond, VA 23219
(804) 819-1902
Fax: (804) 819-1923
www.aarp.org
Email: vaaarp@aarp.org

Multiple Sclerosis Society

Mission Statement: The program provides services and educational programs in addition to funding for research for individuals with multiple sclerosis. The services provided are information and referral, self help groups, peer support programs, educational programs, lending library, equipment assistance, and public education. Off street parking is provided, and program is accessible by bus and internally accessible for the handicapped.

Eligibility: Persons with multiple sclerosis, families, and service providers.

Multiple Sclerosis Society

2104 W Laburnum Ave., Ste 102
Richmond, VA, 23227
(804) 353-5008
(800) 487-4677
(804) 353-5595 Fax

**Virginia Department of
Social Services**

730 East Broad Street
Richmond, VA 23219
(804) 692-1900

**Department of Social
Services of Virginia**

600 East Broad Street
Suite 1300
Richmond, VA 23219
(804) 726-4231
(804) 225-4512 (Fax)

Virginia Department of Social Services (VDSS)

The Virginia Department of Social Services responds to the needs of seniors age 60 and over, adults with disabilities over the age of 18 and other adults with specific needs.

VDSS collaborates with the local departments of social services across the state and other local service providers to offer assistance to elderly citizens in need of protection from abuse; elder adults who require the services of adult care residences; and adults with disabilities who need help with care, transportation and nutrition services.

VDSS also helps adults involved in domestic violence situations; adults in need of financial assistance, energy assistance and food stamps benefits; and citizens who believe they have been discriminated against by a social services agency.

Mission Statement: People helping people triumph over poverty, abuse and neglect to shape strong futures for themselves, their families and communities.

Medicaid

Medicaid, Title XIX of the Social Security Act, is a joint state-federal program, which provides health care benefits to low-income recipients. Though the program was established by federal legislation, eligibility and services differ in every state. The Medicaid program reimburses providers for covered supplies and services rendered to qualified recipients.

Eligibility: Medicaid services are based upon financial need. Those covered include low-income families with children, pregnant women, elderly citizens, and persons with disabilities.

Coverage: The Medicaid program provides only certain services. It does not necessarily cover all the health-related needs of eligible individuals. Currently the program covers a range of durable medical supplies (assistive technology): power wheelchairs, grab bars, hospital beds, patient lifts, walkers, hand-held showers, prosthetic devices, etc. The following Medicaid services can also be viewed as assistive technology funding resources i.e., rehabilitation services, preventive services, occupational therapy, and speech-language therapy. Assistive technology items are categorized by Medicaid as "Durable Medical Equipment (DME). DME is defined as equipment which: (a) can withstand repeated use, (b) is primarily and customarily used to serve a medical purpose, (c) generally is not useful to a person in the absence of illness or injury, and (d) is appropriate for use in the home.

Assistive Technology Loan Fund Authority

The ATLFA makes loans to Virginians with disabilities and their family members, which feature easier loan approval criteria, flexible terms and low interest rates. The ATLFA makes loans and loan guarantees to families on fixed incomes, or who have credit problems related to their disability. Loans may be used to purchase special technology, home and vehicle modifications.

The ATLFA also makes low-interest loans to small businesses and non-profit organizations.

Mission Statement: to facilitate favorable credit financing of assistive technology for Virginians with disabilities.

Eligibility: The borrower with a disability, an immediate family member of a person with a disability or a personal representative, guardian, or other person acting on behalf of a person with a disability. These loans are available for any person with a disability regardless of age or type of assistive technology needed.

Consumer Service Fund

The CSF is used to help consumers achieve specific planned goals (obtain employment, live more independently at home, or eliminate a move to a nursing home.) Examples include special equipment, assistive technology, and home or vehicle modifications.

Eligibility: People of any age living in Virginia who have a demonstrated physical or sensory disability are eligible for funding if their disability-related needs cannot be met by other agencies.

Please note: Consumers will be required to share in the cost of requested services based on their ability to pay.

Department of Medical Assistance Services

Department of Medical Assistance Services (DMAS) strives to ensure that program integrity is maintained in the array of preventive, acute and long-term care services it provides, and that fraud, abuse, and waste are detected and eliminated to the maximum extent possible. DMAS encourages beneficiaries to take responsibility for improving their health outcomes and achieve greater self-sufficiency.

DMAS administers Virginia's Medicaid and other medical programs.

Assistive Technology Loan Fund Authority

8004 Franklin Farms Drive
Richmond, Virginia 23288
(800) 552-5019
(804) 662-9000
(804) 662-9533 (Fax)

Consumer Service Fund

8004 Franklin Farms Drive
Richmond, Virginia 23288
(800) 552-5019
(804) 662-9000
(804) 662-9533 (Fax)

Department of Medical Assistance Services

600 East Broad Street, Ste 1300
Richmond, Va. 23219
(804) 786-4231
(804) 371-4986

**Department of
Rehabilitation Services**
8004 Franklin Farms Drive
Box K-300,
Richmond, VA 23288-0300
(800) 552-5019 Voice
(800) 464-9950 TTY
(804) 662-7154 Voice/TTY

Social Security District Office
718 East Franklin St
Richmond, VA 23219
(804) 771-81251
(800) 772-1213

Virginia Department of Rehabilitation (VR) Services

Vocational Rehabilitation is a joint state-federal program to assist individuals with a disability to maximize their employability, independence, and community integration. There may be some regulations that apply to the needs of older persons who are still in the work force or who wish to obtain employment.

Eligibility: A person must have a physical or mental disability which results in a substantial handicap to employment; and there must be a reasonable expectation that, with the provision of services, the person will be able to become employed.

Coverage: VR regulation requires evaluations to determine disability and the scope of services. In regard to assistive technology, VR must determine if an applicant requires “rehabilitation technology” services. By law, each VR client must have an Individualized Written Rehabilitation Plan (IWRP) which is built around the individual’s employment goal. All services, including assistive technology, must flow from that goal and be included in the IWRP.

Medicare

Medicare is a federal health insurance program, administrated by Social Security, which provides coverage for a limited amount of medical expenses and limited types of medical services. Medicare consists of two parts; the first entitles the beneficiary to inpatient hospital services, home health care, skilled nursing facility care, and hospice care. The second part entitles the beneficiary to physician services and other medical services, counseling, and supplies. Disabled individuals may qualify but must apply.

Eligibility: (1) Persons, age 65 and older, who are eligible for Social Security benefits or railroad retirement benefits. Entitlement for Medicare under this category is automatic. No application is required. (2) Persons with disabilities who are eligible for Social Security or railroad retirement benefits. Enrollment is automatic for Medicare after a 24-month waiting period for those individuals receiving Social Security benefits. Other persons who may qualify for coverage include: Uninsured persons age 65 or older who were eligible for Social Security but declined coverage; women who do not qualify for dependent’s benefits; and, workers whose earnings were too low or sporadic to qualify for insured status.

Coverage: Assistive technology items are categorized by Medicare as “Durable Medical Equipment” (DME). Certain items, which do not meet these criteria, may be covered under a special exception when they serve a therapeutic purpose.

Private Insurance Companies

Private insurance businesses are designed to assist covered individuals pay for medical care. Under our current health care system, insurance is not mandated to cover all individuals or to meet all the health-related needs of covered individuals.

Eligibility: Any person who is either covered under a group policy (generally one purchased by an employer), or who purchases a non-group policy is entitled to the care and services described in the contract.

Coverage: The scope of services included in the policy is structured to meet the acute care needs of individuals.

Contact: Information can be obtained by calling the claims department of the insurance company. This information is generally on the summary of benefits given to policyholders or persons covered under a group plan.

Veterans Administration

This federal agency provides medical assistance to service men and women to help veterans who are filing a disability claim for service connected benefits.

Eligibility: Veterans

Contact: Prosthetic & Sensory Aids Service
VA Medical Center

Employers and Local Business

In our own community, there are many opportunities for private funding through local businesses.

Coverage: Varies, usually after other sources have been exhausted.

Eligibility: Varies, usually assist employees, their families, and local community.

Coverage: Varies, usually after other sources have been exhausted.

Contact: Employer or local business public relations departments.

Service Clubs

Local civic organizations such as Lions, Shriners, Kiwanis, Rotary, Elks, Bell Telephone-Pioneers of America, Sertoma, Quota, Soroptomists, sororities/fraternities, Optimists, Knights of Columbus, and churches.

Eligibility: Varies, usually prefer to assist local individuals.

Contact: Current local organizations.

State Corporation Commission (SCC)

Bureau of Insurance
1300 E. Main St
Richmond, Virginia 23219
P.O. Box 1157
Richmond, Virginia 23218
(800) 552-7945 Voice/TTY
(804) 371-9206

Veterans Administration Regional Office

210 Franklin Road, S.W.
Roanoke, VA 24011
(703) 982-6440
(800) 542-5826

The Virginia Chamber of Commerce

9 South 5th Street
Richmond, VA 23219
(804) 644-1607
(804) 783-6112 (Fax)

**Virginia Housing
Development Authority**
601 S. Belvidere Street
Richmond, Virginia 23220
(800) 968-7837
(804) 782-1986
www.vhda.com
vhdacomm@vhda.com

AIM Mortgage, Inc.
(800) 505-5600

**Directors Mortgage Loan
Corporation**
(800) 442-4966 ext. 2201

Rebuilding Together
1536 Sixteenth Street, NW
Washington, DC 20036
1-800-4-REHAB-9
www.rebuildingtogether.org

Virginia Housing Development Authority

Virginia Housing Development Authority's mission is to help fellow Virginians obtain safe, sound and decent housing that is otherwise unaffordable to them.

Eligibility: Consumers who want to buy homes and have low-to-moderate incomes, individuals or businesses who are building, renovating and rehabilitating apartments for low- to moderate-income Virginians and homeownership and rental programs that serve Virginians who have incomes at 50 to 60 percent of their area medians and who cannot be served by our traditional bond-funded programs.

Senior Reverse Mortgage

The Reverse Mortgage Program makes payments back to you in the same way you paid off your mortgage in monthly installments over a number of years. The reverse mortgage, insured by the Federal Housing Administration and backed by the Federal National Mortgage Association and Congress, was created as a solution to the financial needs of persons over 62 years of age who face the daily challenge of living on a fixed or limited income.

Eligibility: Persons 62 years of age or older who occupy the home as a principle residence; property should be paid in full, or have a minimal remaining balance.

Rebuilding Together

Rebuilding Together's mission is to preserve and revitalize houses and communities, assuring that low-income homeowners, particularly those who are elderly and disabled and families with children, live in warmth, safety, and independence. All affiliates plan and prepare rebuilding projects or another special event on National Rebuilding Day, typically held on the last Saturday in April.

National Organizations and Conferences

Professional and Consumer Organizations not mentioned previously.

American Occupational Therapy Association (AOTA)

Each year, at the AOTA national conference, three major components on assistive technology are offered: (1) Technology Forum, where papers are presented; (2) Technology Lab, where products and new devices are displayed and personnel are available to discuss the latest developments; and (3) the Exhibitors Hall, which is not limited to assistive technology.

American Physical Therapy Association (APTA)

APTA has special interest groups, workshops, and publications addressing assistive technology. The annual conference includes sessions and exhibits on technology and disability.

American Speech-Language-Hearing Association (ASHA)

ASHA publishes a booklet targeted primarily at consumers, entitled Augmentative Communication, which provides an overview of the topic and includes brief case studies. ASHA also has a packet of information on assistive listening devices.

American Therapeutic Recreation Society (ATRA)

The American Therapeutic Recreation Association (ATRA) is the largest, national membership organization representing the interests and need of recreational therapists. Recreational therapists are health care providers using recreational therapy interventions for improved functioning of individuals with illness or disabling conditions.

American Occupational Therapy Association

4720 Montgomery Lane
P.O. Box 31220
Bethesda, MD 20824-1220
(301) 652-2682

American Physical Therapy Association

1111 N. Fairfax Street
Alexandria, VA 22314-1488
(703) 706-3395

American Speech-Language Hearing Association

10801 Rockville Pike
Rockville, MD 20852
(800) 638-8255

American Therapeutic Recreation Society

1414 Prince Street, Suite 204
Alexandria, Virginia 22314
(703) 683-9420
(703) 683-9431 fax
www.atra-tr.org

RESNA

1700 N. Moore Street
Suite 1540
Arlington, VA 22209
(703) 524-6686

**International Society of
Augmentative and
Alternative Communication**

428 East Preston Street
Baltimore, MD 21202-3993

**American Foundation
for the Blind**

15 West 16th Street
New York, NY 10011
(212) 620-2000

**Association for
Macular Diseases**

210 East 64th Street
New York, NY 10021
(212) 605-3719

**National Library Service for
the Blind and Physically
Handicapped**

1291 Taylor Street, N.W.
Washington, DC 20542
(800) 424-8567 or
(800) 424-8572

**Interdisciplinary Society for the Advancement of Rehabilitative and
Assistive Technology (RESNA)**

RESNA is the premier organization focused on assistive technology. RESNA holds an annual conference devoted entirely to assistive technology. It publishes a journal called *Assistive Technology*. In addition, RESNA offers a number of other publications on assistive technology.

**International Society of Augmentative and Alternative
Communication (ISAAC)**

ISAAC publishes a journal entitled *Augmentative and Alternative Communication*. It also holds a biannual conference and publishes the proceedings in its journal.

American Foundation for the Blind

This organization offers a free publication entitled *Public Education Materials Catalogue*.

Association for Macular Diseases

Offers a hot line for information on macular degeneration and produces a newsletter.

National Library Service for the Blind and Physically Handicapped

This library service provides a number of services, including Talking Books, publication on audio cassettes, and computer discs. Each state has at least one regional library.

Lifeline Systems, Inc.

This organization offers an emergency communications system: A hotline to a central location in the community which will in turn notify a designated family member or the medical facility, ambulance, or fire department.

Alexander Graham Bell Association for the Deaf

This association provides information on hearing aids and lip-reading.

League for the Hard of Hearing

The Leagues provides hearing rehabilitation and human services for people who are hard of hearing or deaf, and their families, regardless of age, ability to pay, or mode of communication, and by striving to empower consumers to achieve their potential.

National Technical Institute for the Deaf (NTID)

A national resource center for technical services, devices, and information for persons who are deaf or hard of hearing.

Self Help for Hard-of-Hearing People (SHHH)

This organization and its local chapters provide information, referrals, and support.

Lifeline Systems, Inc.

640 Memorial Dr.
Cambridge, MA 02139
(800) 451-0525

**Alexander Graham Bell
Association for the Deaf**

3417 Volta Place, N.W.
Washington, DC 20007-2778

**League for the
Hard of Hearing**

50 Broadway, 6th Floor
New York, NY 10004
(917) 305-7700 (Voice)
(917) 305-7888 (Fax)
(917) 305-7999 (TTY)

**National Technical Institute
for the Deaf (NTID)**

52 Lamb Memorial Drive
Rochester, NY 14623
(585) 475-6400

**Self Help for Hard-of-
Hearing People**

7910 Woodmont Ave, Suite 1200
Bethesda, MD 20814
(301) 657-2248 (Voice)
(301) 657-2249 (TDD)

The Association for Persons with Severe Handicaps

29 West Susquehanna Ave.,
Suite 210

Baltimore, MD 21204

(800) 482-8274

(410) 828-1306 (TDD)

(410) 828-6706 (Fax)

United Cerebral Palsy Association

1660 L Street, NW, Suite 700

Washington, DC 20005

(800) 872-5827

American Association of Retired Persons

601 E Street, N. W.

Washington, DC 20049

(202) 434-6030

American Society on Aging

833 Market Street, Suite 511

San Francisco, CA 94103-1824

(415) 974-9600

The Gerontological Society of America

1030 15th Street NW, Suite 250

Washington, DC 20005-4006

(202) 842-1275

The Association for Persons with Severe Handicaps (TASH)

TASH provides information on severe disabilities and disseminates materials through an active publications department.

United Cerebral Palsy Association (UCPA)

A research, information, and advocacy agency for persons with cerebral palsy and their families. UCPA has 2,215 local affiliated agencies throughout the country.

American Association of Retired Persons (AARP)

An advocacy group that publishes a monthly journal for older Americans. AARP also publishes awareness bulletins, informational booklets and helpful guides about issues, concerns, and problems related to aging in America.

American Society on Aging (ASA)

The American Society on Aging is a non-profit membership organization that informs the public and health professionals about issues concerning older people. The ASA promotes innovative approaches to meet the needs of older Americans. The organization is taking an active role in exploring the value of assistive technology.

The Gerontological Society of America (GSA)

The GSA is a professional organization that promotes the scientific study of aging in the biological and social sciences. The GSA's emphasis on improving functional independence in later life includes an interest in rehabilitation and assistive technology.

Publications, Journals and Catalogs

Assistive Technology Sourcebook (1990)

Alexandria Enders & Marian Hall, Editors

RESNA

A thorough review of information acquisition, personal assessment, technology evaluation, application, policy issues, service delivery, and resources.

Assistive Technology

This journal is published twice per year and focuses on practitioners in assistive technology service delivery. Articles fall into the following categories: applied research; review papers summarizing the work of several investigators; perspectives on issues in assistive technology by recognized authorities; practical notes or papers that describe new methods; and, case studies that present works in progress or studies where there are only a few subjects.

A. T. Quarterly

The Technology Related Assistance for Individuals With Disabilities Act of 1988 provides funding to every state for establishing information networks that respond to consumer requests about assistive technology. RESNA provides technical assistance to states. This newsletter provides summaries of important issues and excerpts of state program initiatives.

TRACE Resource Book: Assistive Technology for

Communication, Control, and Computer Access

(1993-94 Edition)

This 937-page book is compiled and updated to help professionals, consumers, and family members understand and locate useful tools. The book emphasizes functions, not disabilities, so the products are organized under “communication,” “control,” “computer access,” and “special software.” It includes information resources. The RESNA and TRACE guides will be your critical resources.

RESNA

1700 N. Moore Street
Suite 1540
Arlington, VA 22209
(703) 524-6686

TRACE

2101 Engineering Centers Bldg.
1550 Engineering Drive
University of Wisconsin,
Madison, WI 53705
(608) 262-6966

Van Nostrand Reinhold
115 Fifth Avenue
New York, NY 10003

Hartley & Marks, Inc.
P.O. Box 147
Point Roberts, WA 98281

Public Affairs Center
Canada Mortgage and
Housing Corporation
Montreal, Canada

Beautiful Barrier-Free: A Visual Guide to Accessibility (1993)

Cynthia Leibrock and Susan Behar

A 200-page book of full-color photographs and detailed text demonstrating that accessibility is both readily achievable and quite attractive. The book shows adaptable products for the exterior and entrances: the mechanical, electric, and acoustic infrastructure; the ceiling and wall finishes; windows and doors; floor covering options; and furniture of all types.

Eighty-Eight Easy to Make Aids For Older People (1990)

This 108-page book contains detailed steps and drawings so people can make or participate in making and installing helpful devices and gadgets for the home, yard and garden.

Maintaining Seniors' Independence in the Home: A Guide to Home Adaptations (1989)

This 100-page workbook presents an assessment tool for identifying needed home improvements or adaptations that are easy or inexpensive to accomplish. It works through a wide range of activities. If the senior reports difficulty with an activity, the workbook branches off to identify specific functional limitations, present likely problem areas in checklists, then present multiple recommendations for consideration.

Technology and Aging in America (1985)

This 496-page book reports on a national study of older Americans and ways in which technology can help in maintaining independence and quality of life. It discusses aging, chronic conditions, prevention, nutrition, medications, cost of health care, and many other topics.

Resources for Elders with Disabilities (1990)

This 168-page resource guide includes chapters on hearing loss, vision loss, diabetes, arthritis, stroke, and osteoporosis. Each of these chapters includes lists of: (1) publications, and tapes on the disability area; (2) assistive devices and equipment; and (3) organizations that provide information and/or services. The last chapter is entitled "Aids and Devices That Make Everyday Living Easier."

Breaking New Ground: Cultivating Independence for Farmers and Ranchers with Disabilities

A quarterly newsletter offering features on helpful techniques and technologies, both low-tech and high-tech. Includes a calendar of events, a list of new resources and opportunities to network.

**Office of Technology
Assessment**

U. S. Printing Office
Washington, DC 20402

**Resources for Elders
with Disabilities**

Resources for Rehabilitation
33 Bedford Street, Suite 19A
Lexington, MA 02173

**Breaking New Ground
Resources Center**

Purdue University
1146 Agricultural
Engineering Building
West Lafayette, IN 47907
(317) 494-5088

Catalogs

Sensory enhancers: vision and hearing devices, augmentative communication devices, text magnifiers, scanners with speech synthesizers and voice analyzers.

Ablenet Inc.	800-322-0956
Ability Research, Inc.	952- 939-0121
Adaptivation, Inc.	800-273-2783
Augmentative Communication Consultants, Inc.	800-982-2248
Crestwood Co.	414-352-5678
Deaf Communications of Cincinnati	800-775-3323
Dynavox	888-815-6906
Enkidu Research Inc.	800-297-9570
HARC Mercantile, Ltd.	800-445-9968
Harris Communications, Inc.	800-825-6758
Human Ware	916-652-7253
Kurzweil	617-893-5151
Lighthouse	800-829-0500
LS&S, LLC	800-468-4789
Optalec- low vision	800-828-1056
Phone TTY	201-489-7889
Phonic Ear	800-227-0735
Prentke Romich	800-262-1990
Sentient Systems Technology, Inc.	888-697-7332
TASH	800-463-5685
Word +, Inc.	800-869-8521
Zygo Industries Inc.	800-234-6006

Environmental control units: home modification, adaptations of light switches, timers, and telephones; robotics; additional external switches which can be activated by pressure, eyebrows or breath; and low tech devices or adaptations of existing tools.

Door-o-matic	800-543-4635
Teledyne Brown Engineering	800-944-8002

Daily organizational uses, instructional uses: pill dispensers, electronic calendars, timers; specifically designed computer software such as computer-assisted instructional programs, information management and record keeping programs.

Apple Computer	408-996-1010
Apple	800-795-1000
Attainment Company	800-327-4269
Dunamis, Inc.	800-828-2443
Edmark	800-362-2890
Enabling Devices	800-832-8697
Frankling Learning Resources	800-525-9673
HACH	800-624-7968
Hartley	800-247-1380
KIDTECH	919-387-6088
Lakeshore Learning Materials	800-421-5354
Laureate	800-562-6801
Mayer & Johnson Co.	800-588-4548
Technology for Education, Inc.	800-370-0047

General purpose catalogs with products for enhanced living

Sears Home Health Care

9804 Chartwell
Dallas, TX 75238
1-800-326-1750 voice
1-800-733-7249 TTD

Sammons Preston

P O Box 5071
Bolingbrook, IL 60440-5071
1-800-323-5547 voice
1-800-547-4333 fax
www.sammonspreston.com

Maxiaids

P O Box #3209
Farmingdale, NY 11735
1-800-522-6294

JC Penney

P O Box 2021
Milwaukee, WI 53201-2021
1-800-222-6161 To order
1-800-709-5777 Customer Service
1-800-336-7337 Espanol
1-800-434-5465 Scooters

Radio Shack

P O Box 1981
Fort Worth, TX 76101-1981
1-800-843-7422 voice
1-800-821-1959 fax

Mayer-Johnson Co.

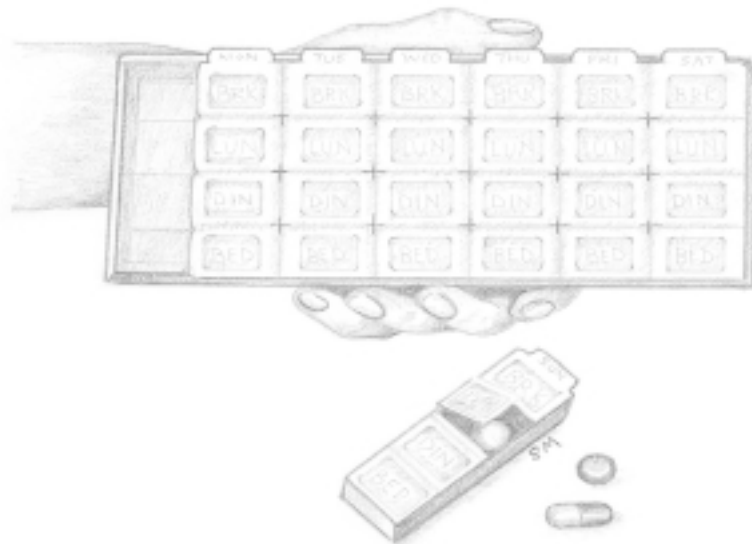
P O Box 1579
Solana Beach, CA 92075-7579
(619) 550-0084 voice
(619) 550-0449 fax
www.mayer-johnson.com

Motivational and self-help devices: ergonomic cooking utensils, remote controls, toys, or games that encourage the person to interact with his or her environment through exploration, manipulation, work and play.

Danmar products	800-783-1998
Enrichments	800-323-5547
Flaghouse	800-793-7900
JC Penney Easy Dressing Fashions	800-222-6161
Maxi Aids	800-522-6294
Ultralite Everest & Jennings	800-322-4681

Mobility devices: canes, walkers, wheelchairs, lifts, modified vans, power scooters, that make it easier for people with disabilities to move about independently in the home, workplace and community.

Amigo	800-248-9130
Bruno Independent Living Aids	800-882-8183
Invacare	800-333-6900
Quickie	800-236-4215
Ricon	800-322-2884
RJ Cooper & Associates	800-752-6673
Rifton	800-777-4244



Weekly organizer for medications

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